

Ecological Reference Worksheet*

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Contact for lead author: Phil Smith **Reference site used?** No

Date: 24 October 2002 **MLRA:** 42 **Ecological Site:** Malpais **Applies to** All (write year or AAll@)

Indicators. For each indicator, describe the potential for the site. Where possible, (1) use numbers, (2) include expected range for poor B good production year and (3) cite data. Continue descriptions on a separate sheet.	ERA Match?
1. Number and extent of rills: There should not be any rills on this sight.	
2. Presence of water flow patterns: Water flows from flat uplands to crevices and pockets with very little soil movement.	
3. Number and height of erosional pedestals or terracettes: There should not be any erosional pedestals or terracettes on this site.	
4. Bare ground from Ecological Site Description or other studies: Bare ground can make up to 25% of the ground cover on this site according to the ESD. In addition, there can be up to 35% cobble and stone and 12% for gravel resulting in a total of approximately 72% of the surface not covered by vegetation.	
5. Number of gullies and erosion associated with gullies: There should not be any gullies or erosion associated with gullies on this site.	
6. Extent of wind scoured, blowouts and/or depositional areas: There should not be any wind scoured, blowouts. However, depositional areas from adjacent sites can be common.	
7. Amount of litter movement (describe size and distance expected to travel): There can be some small sized litter movement for short distances by wind and water.	
8. Soil surface (top few mm) resistance to erosion (stability values are averages B most sites will show a range of values): Soil surface should be resistant to erosion with stability values of approximately 3-5.	
9. Soil surface structure and SOM content (include type and strength of structure, and A-horizon color and thickness): For the Akela Series in Dona Ana County this gravelly sand loam should have an A horizon that is 0-8 inches thick. It has a weak fine subangular blocky structure and is light brown (7.5YR 6/4 dry) to brown (7.5YR 4/4 moist). The SOM content should be less than 1%.	
10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff: Most of the soil and vegetation should be found in crevices and low pockets. The infiltration rates can be high in these areas. Runoff should come from the rocky slopes.	
11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site): There should not be compaction layers on this site.	
12. Functional/Structural Groups (list in order of descending dominance by above-ground weight using symbols: >>, >, = to indicate much greater than, greater than, and equal to): Boer4 > Bocu = bunch grasses (arizona cottontop, tangle head, cane bluestem) > bush muhly = blue grama > fourwing saltbush > tobosa = other bunch grasses = other shrubs = other grasses = forbs	
13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence): Mortality and decadence should be higher on the slopes and less in crevices and bowls. Due to the amount of rock the amount of effective precipitation is high.	
14. Expected litter amount: Average 10% cover and 1.25 inch deep. (As per ESD)	
15. Expected annual production (this is TOTAL above-ground production, not just forage production): The annual production in years with unfavorable precipitation should be approximately 300 lbs/acre and 750 lbs/acre in years with favorable precipitation according to the ESD.	
16. Potential invasive (including noxious) species (native and non-native). List species which characterize degraded states and which, after a threshold is crossed, will continue to increase regardless of the management of the site@ and may eventually dominate the site: Creosote, mesquite	
17. Perennial plant reproductive capability: Black grama reproduces by seed sporadically and reproduction by tiller and stolon can be common. The dropseeds should have high reproductive potential and rapidly recover from drought in the absence of additional stresses (grazing). Most of species readily reproduce with adequate precipitation.	

*This sheet can also be used to describe Ecological Reference Areas (ERA=s). For ERA=s, you must also complete the following page and describe status of each indicator. In the far right column, write AYes@ (ERA matches expected for site) or ANo@ (ERA does not match expected for the site). Where the answer is ANo@, explain difference in comments.